Local Approval of Food Sources

References

- **Mil-Std-3006**
- **Mil-Hdbk-3006**
- **Food Code**
- **Older mil-std on bakeries - DD form 2387 (Jun 90) on web**
- **General methodology (see checklist)**

Appendix A

- **Used for all type of facility audits**
- **General sanitation criteria: Tables I - IV**
- **Item codes (i.e C6) are cross referenced in the other appendices**
- **Table VI - HACCP is for those facilities that are required by law to have HACCP plans (meat, seafood, poultry in the USA)**

Definitions, p.3

- **Critical defect:** Causes food to be unsafe for consumption, not eliminated by subsequent step
- **Major defect:** less food safety concern but may affect the product usability, may become critical
  - may not cumulate to become critical
- **Observation:** not IAW GMPs but not critical or major
  - Similar observations may cumulate to become a major

Ratings

- **Unacceptable: one critical or 4 major defects**
- **More than one instance of same defect on checklist counts only as one defect, but…**
- **Cumulative observations of related problems may indicate an out of control process that may result in a major defect**
- **Note: Army accomplishes audits in civilian clothing**

Risks of local procurement

- **Why do we do it at all?**
  - **Host-nation agreements**
  - **Logistics issues**
  - **AF culture paradigm**
  - **A target of opportunity**
  - **Smaller “footprint” in theater**
- **MREs were designed to help solve the problem but are still not popular**

CHALLENGES

- Should food safety standards be automatically lowered merely because a troop is in the field?

  Absolutely not!!!

- It can be very difficult to find sources that meet the critical requirements to ensure food safety. For example:
  - temperature control in processing and storage
  - use of potable water
  - parasite free
  - chemical and heavy metal free

PRINCIPLES

- Food safety is critical to force protection
- Our food safety and quality standards should remain constant (regardless of locale)
- The threat is generally much higher overseas

RESPONSIBILITIES

- PH personnel provide professional expertise and make recommendations to the commander
- Contracting or logistics or Services personnel can often suggest alternate ways to obtain the desired product or a suitable substitute
- The force commander decides when/if to approve a source
- Food safety should not be sacrificed for political, financial, or other reasons

Meat storage in A

Can they refrigerate this prod

THE THREAT

- Force health protection (FHP)
  - There are significant risks to deployed personnel associated with consumption of locally procured subsistence that can seriously affect disease non-battle injuries (DNBI)
    - normal risks associated with poor sanitation
    - risks that are unique to third world countries
    - bioterrorism risk

RISKS ASSOCIATED WITH POOR SANITATION

- lack of potable & hot water and sanitizing supplies
- lax to nonexistent sanitary standards
- questionable health standards among workers
- endemic diseases differ from US (high prevalence)
- poorly educated work force
- dated production techniques - manual vs automated

Potable Water In H

Haitian Market - Fresh Redefi

Haitian “Slaughter House”

RISKS UNIQUE TO THIRD WORLD COUNTRIES

- few (no) independent inspectors
- little or no public health system (quality controls, epidemiology, lab support, etc.)
- press often restrained or controlled
- almost no liability risk for plant owners
- cultural practices sometimes increase risk

RISKS RELATED TO BIOTERRORISM

- inspectors cannot guarantee products are tamper free
- difficult to ensure safety and source of ingredients
- potentially easy way to disable large numbers of deployed personnel - because everyone eats from a common source
- customs issues - there are plant/animal diseases and insects that are foreign to the United States that must not be accidentally or intentionally introduced

OCONUS FOOD GROUPS FREQUENTLY PURCHASED

listed by frequency of requests

- Baked breads and rolls
- Fresh fruits and vegetables
- Water and ice
- Eggs
- Seafood
- Meats
- Dairy Products

RISK ASSESSMENT OF FOOD GROUPS

listed in order of increasing safety risk

- Baked breads and rolls
- Fresh fruits and vegetables
- Eggs
- Water and ice
- Seafood
- Meats
- Dairy Products

BREAD

- Can improve morale greatly and are generally of low safety risk
- Suggested improvements generally easy to accommodate
- Ingredients
  - insect and pesticide concerns
- IAW MIL-STD & HDBK 3006
- Title 21 CFR Part 110 GMP

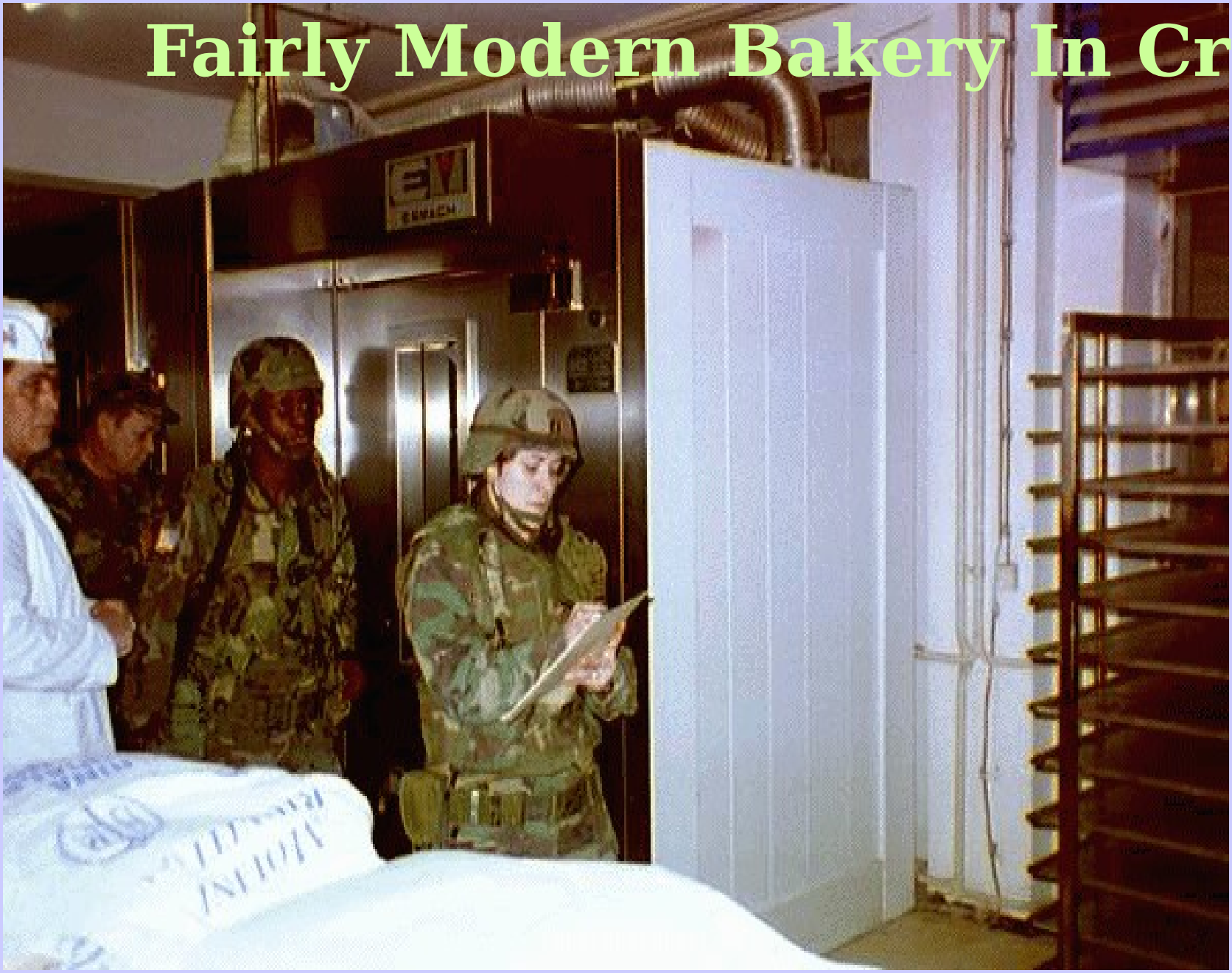
Bakeries

- **Appendix B checklist lists references to BISSC after bullets**
- **Baking Industry Sanitation Standards Committee: www.bissc.org**
- **No requirement for metal detector**
- **DD Form 2387 (on AF pubs web site)**
  - **Less equipment oriented**
  - **Combines general sanitation standards and bakery-specific issues**

BREAD
mitigating the risk

- Do not purchase/approve cream-filled
- Consider picking up fresh at the source and storing at base
- Control rodents and birds
- Ensure all chemical products are removed from facility
- Inspect delivery vehicles
- Inspect everything post oven carefully!

Fairly Modern Bakery In Croa



FRUITS & VEGETABLES

- Commonly requested
- Significant source of foodborne illness
- Mechanisms for contamination
  - fertilizers - use of “night soil”
  - pesticides - types used
  - land use history - assume contaminated
  - irrigation water (fecal/industrial/agricultural pollution)
  - municipal or lagoon sewage sludge
  - worker personal hygiene habits - latrine facilities?
  - contamination during transportation

Safe Farm Sources

- Very difficult to be confident of source.
- Growing fields
  - clean soil and clean water (gross and micro)
- Protected from
  - flooding/drainage contamination
- Fertilizer Usage
  - no human, swine, poultry manure
  - horse and cattle manure if composted
  - chemical fertilizers preferred
  - compost

Safe Farm Sources (cont.)

- Inspections include:

- handling
- packers
- facilities
- monitoring of ready-to-eat products
- monitor command health reports

PUBLIC HEALTH CONCERNS of FF&V

- Types of produce implicated in foodborne disease outbreaks:
  - bean sprouts
  - cut melons
  - cole slaw
  - foil wrapped baked potatoes
  - tomatoes
  - fresh cut produce
  - berries (raspberries)

FRUITS & VEGETABLES mitigating the risk

- Assume all contaminated and handle accordingly vs purchase only whole (uncut)
- Purchase only product that has a protective shell cantaloupes vs lettuce
- Require cleaning and sanitization of all products (50-200 ppm chlorine)
- Purchases only from inspected farms/sources - no co-mingling of product

FRUITS & VEGETABLES mitigating the risk (cont)

- Tree fruits are lower risk (if don’t hit the ground)
- Salad type vegetables (ground grown, ready to eat are usually washed)
- Non-salad type vegetables (to be cooked before consumption) process these yourself
- Aquaculture (is the water safe?)

FRUITS & VEGETABLES mitigating the risk (cont)

- Considered safe if whole, intact, not grossly contaminated and processed
  - cutaneous tissue should be intact
  - this protects the meat of the plant
  - internal tissue generally unaffected
  - potentially still at risk for bioterrorism

Fresh-cut produce

- **FF&V not required to come from approved sources per AFI 48-116**
- **Mil-Std-3006 has checklist (Appendix P)**
- **Examples:**
  - **peeled/sliced potatoes**
  - **shredded lettuce/cabbage**
  - **carrot and celery sticks**
  - **Cauliflower and broccoli florets**
  - **peeled citrus fruits/sliced melons**
  - **packaged fresh salads**

Fresh-cut produce

- **Processing actually destabilizes products, increasing perishability**
- **The WATER is the key!!**
- **Overall sanitation of equipment**

MILK AND FRESH DAIRY PRODUCTS

- Very high risk
  - brucella, TB, Q-fever, E.coli, etc.
- Requires modern technology
- Develop sources IAW PMO
  - farm to table program
- IAW MIL-STD & HDBK 3006
- Title 21 CFR part 110
  - good manufacturing practice (GMP)

MILK AND FRESH DAIRY PRODUCTS (cont)

- Requires a safe/potable water source
- Requires equipment substantially compliant with the FDA and pasteurized reliably
- Require excellent QC support
- Product quality is a separate issue

DAIRY PRODUCTS (cont) mitigating the risk

- Forget fresh milk and dairy products
- Import fresh, frozen, powdered, or UHT
- Powder from US, Australia, NZ, Holland, Denmark
- DITTO for milk fat
- Recombined and repasteurized
  - water, powder, and anhydrous milk fat

GENERAL RECOMMENDATIONS

- Limit local procurement as much as possible
- Avoid high risk items and food groups
- Substitute the next best option placing food safety and force protection as a top priority
  - example: airlift in frozen steaks or shrimp instead of locally procured fresh
- Look for existing sources in-country

GENERAL RECOMMENDATIONS

- Do not perform haphazard or off-the-cuff “Assessments”
- Either approve it and take responsibility for it, or do not approve it.
- Giving assessments such as the one below gives commanders (and PH) an automatic “out”:
  - **“While none of the inspected establishments meet minimum force health protection standards, plant A reduces risk as compared to plant B, etc.”**

CONCLUSIONS

- You, the inspector, are eating the same menu as the other troops and wants fresh product just as badly, are you willing to take the risk?
- On many deployments DNBI are far more numerous than combat casualties.

  Foodborne illness can incapacitate **or kill** a large percentage of the force very quickly.
- Please make food safety a command priority.